ABSTRACT OF THE DISCLOSURE

The invention relates to management of data packets and buffers comprising segments of data packets in a mobile communication system (1). Information associated with data packet segments is analyzed by a Base Station System (BSS) (100) housing a data buffer (120). Based on this information analysis, the BSS (100) can identify those segments (P(FIRST) - P(LAST)) in the buffer (120) that constitutes a complete data packet. Once identified, the segments can be discarded from the buffer (120). The information can include size information (S(k), S(k+1)), whereby the analysis comprises pairwise comparing the size (S(k)) of a current segment (P(k)) with the size (S(k+1)) of a next consecutive segment (P(k+1)). This size comparison enables identification of a first segment (P(FIRST)) and a last segment (P(LAST)) of the complete data packet. The information could also, or alternatively, include a notification provided in the header of the segment. This notification identifies the associated segment as the first or last segment of the data packet or an intermediate segment.